

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 20
(SEDIMENTATION POND/IMPOUNDMENT DATA SHEET)

Applicant's Name American Energy Corporation Pond # 13
Type of impoundment Excavated Permanent Temporary X

1. POND DRAINAGE AREA DATA:

- a) Drainage area 47.9 acres
- b) Disturbed area 40.4 acres
- c) Ave. land slope 25 %
- d) Hydrologic soil group C
- e) Hydraulic length 5144 ft.
- f) Cover/condition of the undisturbed area Pasture/Fair

2. DESIGN STORM CRITERIA:

a) Method:

- 1) Design method (s) including computer programs: SEDCAD 4.0
- 2) SCS curve number various (see run sheets)

| b) Rainfall Amount/Peak Flow | Rainfall, in. | Peak flow, cfs. |
|--|-------------------|-------------------|
| 1) 10 year, 24 hour = | <u>3.7</u> | <u>79.9</u> |
| 2) 25 year, 24 hour = | <u>4.2</u> | <u>95.3</u> |
| 3) 50 year, 6 hour = (if permanent) | <u> </u> | <u> </u> |
| 4) 100 year, 6 hour = (if 20/20 size) | <u> </u> | <u> </u> |

3. POND SIZE:

a) Dimensions: N/A Excavated Pond

- 1) Dam height ft.
- 2) Dam width ft. (MIN)
- 3) Dam length ft.
- 4) Dam downstream slope % (MAX)
- 5) Dam upstream slope % (MAX)
- 6) Core length ft. ft. ft.

- b) Sediment storage volume 11.31 ac.ft. is provided below the 1083.7 foot elevation.

| c) Stage/Area Data: | Elevation ft. | Surface Area ac. | Volume ac.-ft. |
|-------------------------------|------------------|---------------------|-------------------|
| 1) Bottom of pond | <u>1073.0</u> | <u>0.78</u> | <u>0</u> |
| 2) Streambed at upstream toe: | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> |
| 3) Principal spillway inlet: | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> |
| 4) Exit Channel Crest: | <u>1083.7</u> | <u>1.33</u> | <u>11.31</u> |
| 5) Top of embankment: | <u>1086.0</u> | <u>1.45</u> | <u>14.52</u> |

4. PRINCIPAL SPILLWAY: N/A
- a) Pipe length _____ ft.
 - b) Pipe diameter _____ in.
 - c) Pipe slope _____ %
 - d) Riser diameter _____ in.
 - e) Riser height _____ ft.
 - f) Type of pipe _____
 - g) Number of anti-seep collars _____; spacing along pipe _____ ft.
 - h) Does the design include a trash rack? _____ Yes, _____ No.
 - i) Does the design include an anti-vortex device? _____ Yes, _____ No.

5. EMERGENCY SPILLWAY/EXIT CHANNEL:

- a) Base width 12 ft.
 - b) Design flow depth 1.7 ft. Depth in level section 1.3 ft.
 - c) Exit slope 1.4 %
 - d) Exit velocity 3.7 fps
 - e) Channel lining Vegetative Grass Mix
 - f) Side slopes 2:1
 - g) Freeboard 1.7 ft.
 - h) Entrance slope 50.0 %
 - i) Length of level section 40 ft.
6. The minimum static factor of safety for this impoundment is 1.5
7. Provide as an addendum to this attachment a detailed plan view or 2 cross sections of the impoundment.
8. COMMENTS
- A 6" diameter PVC pipe 130 feet long at a slope of 4.6 percent will be used to dewater the pond. The invert will be at the 1080 foot elevation.
9. Is this an MSHA structure? _____ Yes, X No. If "yes," provide the MSHA ID. number if one has been assigned _____
10. If this is to be retained as a permanent impoundment, submit an addendum to this attachment demonstrating compliance with rule 1501:13-9-04(H) (2) of the Administrative Code.
11. I hereby certify that this impoundment is designed to comply with the applicable requirements of rule 1501:13-9-04 of the Administrative Code using current, prudent engineering practices.

Signature

William J. Siplivy

Date

10 July 2002

P.E. SEAL

